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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,595	12/03/2003	Jae-Jin Lyu	6192.0329.US	4849
7590	11/22/2005		EXAMINER CHEN, WEN YING PATTY	
McGuireWoods Suite 1800 1750 Tysons Boulevard McLean, VA 22102-4215			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/725,595	LYU, JAE-JIN	
	Examiner	Art Unit	
	Wen-Ying P. Chen	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 8-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's Amendment filed 11/08/05 has been received and entered. Regarding claim 8, since claim 8 corresponds to a non-elected species (see Response to Election/Restriction filed Jul. 20, 2005), therefore is withdrawn from consideration. Claims 1-7 remain pending in the current application.

Claim Rejections - 35 USC § 103

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiyama et al. (US 2002/0140888) in view of Jones et al. (US 6124907) further in view of Gunning, III et al. (US 5638197).

With respect to claim 1 (Amended): Nishiyama et al. disclose in Figure 1 a liquid crystal display apparatus comprising:

- a first transparent substrate (element 134);
- a second transparent substrate (element 111) facing the first transparent substrate;
- a liquid crystal layer (element 120) interposed between the first and the second substrates; and
- a retardation layer (element 116) interposed between the first and second transparent substrates, and compensating phase difference of light that passes through the liquid crystal layer.

Nishiyama et al. fail to specifically disclose that the retardation layer has a function of a biaxial film.

However, Jones et al. disclose in Column 9 lines 62 and Figure 1 a liquid crystal display apparatus comprising a retardation layer (element 17) having a function of a biaxial film interposed between the first and second transparent substrate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal apparatus as taught by Nishiyama et al. wherein the retardation layer has a function of a biaxial film as taught by Jones et al., since biaxial retardation films exhibit better display contrast and wider viewing angles, as taught by Gunning, III et al. (Abstract).

As to claims 2-4: Nishiyama et al. disclose all of the limitations set forth in claim 1, but fail to specifically disclose the composition of the retardation layer.

However, Jones et al. teach the use of internal retarder/polarizer corresponding to Figures 1 and 9, wherein the retardation layer comprises a cholesteric liquid crystal polymer including reactive mesogen mixture (Column 12, lines 39-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display apparatus as taught by Nishiyama et al. wherein the retardation layer has the properties as taught by Jones et al., since Jones et al. teach that having such retarder/polarizer helps in improving contrast ratios in the display due to the minimization of the de-polarizing of color filters (Abstract).

As to claims 5-7: Nishiyama et al. further disclose in Figure 1 that the second transparent substrate further comprises a color filter layer (element 113), a protection layer (element 114)

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disposed on the color filter layer, a common electrode layer (element 115) disposed on the protection layer, and the retardation layer (element 116) is disposed on the common electrode layer.

Response to Arguments

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Ying P. Chen whose telephone number is (571)272-8444.


The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Ying P Chen
Examiner
Art Unit 2871

WPC
11/17/05


ANDREW SCHECHTER
PRIMARY EXAMINER